

**REMARKS**

At the outset, the courtesies extended by the interview and her Supervisor in granting the Interview, and the further courtesies they extended at the interview itself, are appreciatively noted. This case has been carefully reviewed and analyzed in view of the outstanding Final Office Action dated 8 July 2003 and the discussions had at the interview. Responsive thereto, Claims 8, 13-14, and 19 are amended for further prosecution in this case. It is believed that with such amendment of Claims, there is a further clarification of Applicant's invention for this Patent Application.

In the Final Office Action, the Examiner rejected Claims 8-14 and 19-20 under 35 U.S.C. § 102(b) as being anticipated by the newly-cited Merrill, et al. reference. Stating that Merrill, et al. discloses an inductive device formed on a substrate, the Examiner correlated the reference's plurality of conductive coils formed of different insulating surfaces with Applicant's claimed features.

As each of Applicant's newly-amended Independent Claims 8, 13-14, and 19 clearly recites, Applicant's ball-shaped signal transforming device is one which incorporates in the same chip a plurality of integrated inductor devices which interact to cooperatively effect certain signal transforming operations. Each of the Independent Claims 8 and 13-14 is thus clarified to recite that "the first conductive layer has formed thereon a first plurality of inductors disposed an interleaved manner." Independent Claim 19 likewise recites "the first conductive layer" being formed with both "a first spiral

inductor and a second spiral inductor that are disposed in interleaved manner.” Independent Claims 8 and 13-14 further recite among their features at least one other inductor formed on a second conductive layer insulated from the first, to be “DC isolated from the first plurality of interleaved conductors.”

The Merrill, et al. reference cited by the Examiner does disclose a device having coil portions formed on different layers. Note, however, that the reference discloses a structure necessarily for a single IC inductor. Far from forming separate inductor devices, the coil portions M1, M2, M3 “in the various layers” are specifically prescribed to be “interconnected in series,” (Column 1; Line 63). The inner and outer coil portions at each level, too, are serially connected such that “the six coils in Fig. 1 are effectively connected in series” to form one high Q factor inductor (Column 2; Lines 62-63), as the reference explains.

Merrill, et al., then, plainly fails to disclose a “plurality of inductors,” much less the plurality of inductors set forth in the manner now more clearly recited by Applicant’s pending Claims. The reference nowhere even suggests any coil portions disposed on different or the same levels to be parts of different “inductors.” It actually teaches quite to the contrary, requiring its coil portions to be serially offset portions of the same inductor device. By definition, then, Merrill, et al.’s “series-connected coil” structure (Column 4; Line 37) also precludes any of its coil portions at one level from being “DC isolated from...[a] first plurality of interleaved inductors” formed at a different level, as

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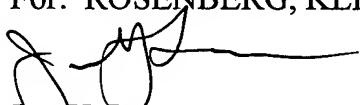
each of Applicant's newly-amended Independent Claims 8 and 13-14 also now more clearly recites.

Moreover, Merrill, et al. prescribes an arrangement of coil portions which actually obviates the need for any cross-over coil structures. Indeed, the reference even notes at one point regarding Fig. 3, that "there is no need for a cross-over for input lead 11" in order "to extend beyond the boundary of outer coil m1," (Column 3, Lines 40-42). Consequently, even if it were ignored for the moment that Merrill, et al.'s coils necessarily form portions of the same inductor, the reference wholly precludes providing any "conductive path from...[a] first conductive layer to...[a] second conductive layer and back to the first conductive layer to allow...[a] first spiral inductor to cross-over...[a] second spiral inductor," as Applicant's Independent Claim 19 clearly recites.

It is respectfully submitted for these and other reasons that the Merrill, et al. reference fails to disclose the unique combinations of elements now more clearly recited by Applicant's pending Claims for the purposes and objectives disclosed in the subject Patent Application.

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It is now believed that the subject Patent Application has been placed fully in condition for allowance, and such action is respectfully requested.

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